

[0002]Claims 21-28 are pending in this application and were rejected for obviousness under 35 USC 103(a). The applicant respectfully notes the examiner's remarks.

[0003]In an analogous situation, patent claims were granted on June 13, 2006, to Fujita et al. in US Patent No. 7,061,523 B2. In this patent, claims for a capsule-type CMOS medical imaging device are granted in claims 1, 2, and 3. I offer evidence below that the invention granted to Fujita et al. is more obvious than the invention claimed in my application US Patent Application No. 10/729,725, therefore my invention should also be granted, for the same reason's that Fujita et al. received their invention.

[0004]Fujita et al. claims for a capsule-type CMOS medical imaging device are obvious under 35 USC 103(a) based on the following facts. These facts build the obviousness case in a structure analogous to that used to reject my claimed invention.

1. In US Patent No. 2,788,390 Sheldon discloses an endoscopy device with a television (video) camera mounted at its tip to facilitate viewing (column 1 and Fig. 4).

2. In US Patent No. 3,971,362 Pope et al. disclose a capsule-type medical sensor device that broadcasts deep-body temperature readings to an external receiver (abstract).

3. In US Patent No. 5,841,126 Fossum et al. disclose a CMOS sensor (video) device for use in medical imaging (paragraph 1, Background and Summary of the Invention).

[0005]A person normally skilled in the art can combine these three teaching patents to produce the obvious invention claimed and granted to Fujita et al. That is, all Fujita et al. did was replace the temperature sensor in the capsule device described by Pope et al., with a video medical imaging CMOS circuit disclosed by Fossum et al., as suggested by the video endoscopy device as disclosed by Sheldon.

[0006]A major point here is that Fujita et al. were granted their invention regardless of the fact that it was clearly described in these three patents much before they thought of it. This situation is directly analogous to the situation used to reject the claims I made for my capsule-type ultra-wideband sensor medical imaging device. If Fujita et al.'s device is not so obvious as to disallow patentability, why is mine so obvious that it is

disallowed, using the same test?

[0007]I assume Fujita et al. were granted a patent because their examiner considered their invention an improvement over the temperature reporting capsule described by Pope et al., even though it is the same concept, just with a different type of sensor substituted for the temperature measuring circuit.

[0008]I further argue that my invention is less obvious than that granted to Fujita et al. for the following reasons.

1. Fujita et al. work for Olympus Corp. which is a multi-billion dollar international conglomerate that devotes billions of dollars to research every year. These researchers were fully aware of ultra-wideband (UWB) technology as shown by claiming an UWB communications means in claim 43 of their application. Additionally they claim probably every other type of sensor know to anyone anywhere for their capsule device. However, they do not claim an UWB imaging sensor, because it never occurs to them to do so. This is precisely because it is not obvious to use an UWB sensor in such a device. No doubt Olympus Corp. spent millions of dollars developing their device and writing the patent application. It does not make sense that they would not add one claim for an UWB imaging sensor if it had occurred to them, but it is obvious that it never entered their minds to use such a thing.
2. The UWB radar motion sensors disclosed by Starr in US Patent No. 5,688,555 are much to large and foreign in application, using moving parts and all, that no-one would ever read his description and think of shrinking the device to a micro size so they could be put into a capsule.
3. There is no mention of using an UWB sensor in a capsule-type endoscopy device prior to my invention of it. I know this because I paid a patent attorney to do a worldwide search. A reason there was no mention of it anywhere, is because there was no motivation for people to think of such a combination. Doctors were satisfied enough with current video displays of the GI tract. Researchers working in the UWB field were focused on external devices like

that described by Starr or using UWB as a communications protocol.

4. Fujita et al.'s patent application 2003/0085994 was not published until May 8, 2003. This would not disallow patentability for my invention since it less than 1 year before my filing date of December 4, 2003. Further I did not see this application until alerted to it by the examiner in a response to my application.

5. UWB is usually thought of in terms of communications or radar, it is rarely thought of in terms of imaging by those who know it. This was especially the situation in 2003 when UWB was just beginning to be explored and I filed my patent.

6. If patent protection is not granted for this medical device, it is likely that it will not be produced, and many thousands of people will suffer terrible pain, disability, and death as a result of cancers that were not detected early enough for remedy.

7. This is a patentable improvement over the device disclosed in the Fujita et al. patent for certain circumstances.

[0009]I respectfully ask the Commissioner to reconsider my claimed invention, after taking these brief remarks into consideration. I also implore my examiner contact me if he believes that some edits to my claims could possibly be allowed, before a final action is officially filed. This could save the time and expense of an appeal effort. My phone number and email are listed below. Thank you.

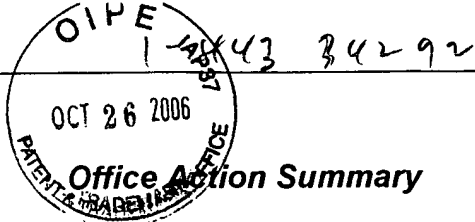
Respectfully,

John Weirich

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Office Action Summary

Application No. 10/729,725		Applicant(s) WEIRICH, JOHN PAUL	
Examiner Matthew J. Kasztejna		Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/4/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

CPM

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 6, 2006 has been entered.

Notice of Amendment

In response to the amendment filed on June 6, 2006, amended claims 21-22 and new claims 23-26 are acknowledged. The current rejections of the claims stand. The following new and reiterated grounds of rejection are set forth:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-28 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0085994 to Fujita et al. in view of U.S. Patent No. 5,688,555 to Starr.

In regards to claims 21-25 and 27-28, Fujita et al. disclose a capsule imaging system comprising: imaging means for imaging at least a portion of a gastro-intestinal

digestive tract in a subject by emitting and receiving a plurality of electromagnetic signals above three gigahertz (see paragraphs 0051-52, 0063 and 0098), a communications means for communication with at least one antenna outside of the GI digestive tract of the subject including at least one radio transmitter (see paragraph 0122); a controlling circuit to control a plurality of communication operations by the radio transmitter, and to control at least one operation of the imaging means (see Figs. 3-6); a capsule to enclose the imaging means, communications means and the controlling circuit (see Fig. 2); and a power supply 21 inside the capsule to supply electrical power to the communication means and the imaging means (see paragraph 0052). Fujita et al. are silent with respect to the imaging means including an ultra-wideband sensor system at frequencies in the radio wave spectrum substantially between 3.1 and 10.6 gigahertz. Starr teaches of an analogous imaging system and apparatus which implements ultra-wideband radar motion sensors to provide three-dimensional images in real-time. Furthermore, Starr discloses an object of the invention is to provide an imaging system for use in the biological sciences (see Cols. 1-2). It would have been obvious to one skilled in the art at the time the invention was to use an ultra-wideband imager in the apparatus of Fujita et al. to provide an alternate imaging means capable of producing an image having accurate three-dimensional structure localization with minimal distortion as taught by Starr.

In regards to claim 26, Fujita et al. disclose a capsule imaging system, wherein the communications transmitter unit operates in conjunction with a wearable vest-style garment for the subject having the GI digestive tract to wear as the capsule travels in

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the GI digestive tract, wherein the wearable vest-style garment includes at least one communication signal receiving antenna 4 to receive a plurality of radio wave signals from the communications transmitter unit (see Fig. 1a).

Response to Arguments

Applicant's arguments with respect to claims 21-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

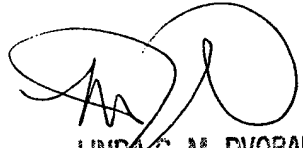
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kasztejna whose telephone number is (571) 272-6086. The examiner can normally be reached on Mon-Fri, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJK *[initials]*

8/10/06


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